

**Canon**

# HJ15ex8.5B KRSE-V

CANON SHAKES THE INDUSTRY WITH THE WORLD'S FIRST PORTABLE IMAGE STABILIZED HD LENS



**INNOVATION**  
In TV Optics Since 1958

**IMAGE  
STABILIZER**

**HDXS**

# HJ15ex8.5B KRSE-V

HDXS



Canon introduces an important innovation in HD production portable lens, the HJ15ex8.5B KRSE-V. This is specifically intended to extend production flexibilities in mobile HD shooting of many forms. The lens embodies a built-in optical image stabilization system based upon Canon's patented Vari-Angle Prism Image Stabilizer (VAP-IS) technology. Canon's IS technology has been significantly improved over an earlier system deployed a decade ago in a standard definition lens. Rock solid imagery is ensured when the lens-camera system is subjected to a wide range of perturbation frequencies encountered by a camera operator who is shooting handheld while walking, running, or operating from a motorcycle pillion, within a moving vehicle, boat, or helicopter.

## MAIN FEATURES

### New Solution for "Stable" HD Image Production

#### Preserving Full HDTV Optical Performance with incorporation of IS System

The nature of high definition imagery is the sensitivity to a sudden lowering of image quality when the originating HD lens-camera system is subject to physical disturbances. Based upon long term operational studies and extensive research Canon has successfully developed a powerful real-time counter to the many forms of physical disturbances that can be encountered on location shooting.

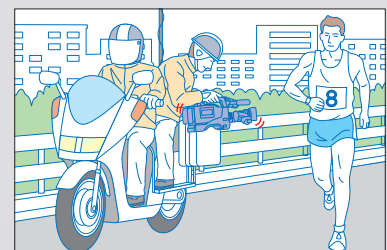
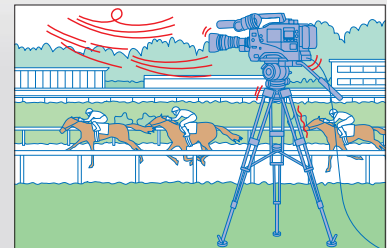
#### Powerful Image Stabilization for Various Environments

Throughout the entire zoom range, the Vari-angle Prism image stabilizer technology provides real-time compensation for a wide range of disturbance frequencies to ensure a high level of HD image stabilization. These disturbances include lens-camera jolting associated with handheld and shoulder mounting by a camera operator who is in motion, vibrations when tripod mounted on an unstable platform or in windblown environments, to the higher vibration frequencies encountered when operating on vehicles, boats, and aircraft.

#### Various Stabilizing Modes

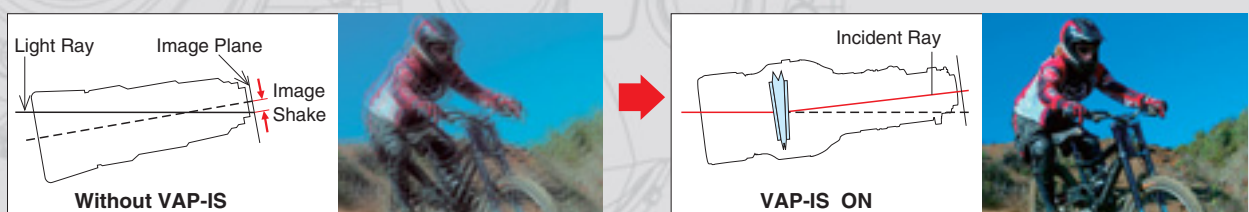
In order to optimize the image stabilization action for different shooting conditions, various stabilization modes are selectable. Combination of two modes from each category is available and each mode is simply set by changing the switches on the lens.

Select According to the Shooting Situation	<b>Portable mode</b>	Compensates for motion-related disturbances while shooting shoulder mount or handheld
	<b>Tripod mode</b>	Effectively compensates for disturbances caused by unsteady platform or wind.
Select According to the Direction of Disturbance	<b>H+V mode</b>	Optimizes stabilization action when disturbance frequencies are both horizontal and vertical
	<b>V mode</b>	Effectively counters vertical disturbances while operationally panning the lens-camera



#### Vari-Angle Prism Image Stabilizer (VAP-IS)

Under perfect shooting conditions, light rays from a scene pass through the lens optical system in a tightly prescribed manner. Any vibration or jolt to the lens-camera system will deflect those light rays and produce image unsteadiness. The VAP-IS technology is incorporated within the lens optical system to intercept such light ray perturbations and correct their deviations in real-time. The technology to do this is based upon a flexible optical bellows that entails two flat glass elements separated by a special liquid forming a sealed mini-optical grouping within the overall lens element groupings. The bellow expands and contracts when the lens is physically disturbed – and the very high refractive index of the liquid bends the disturbed light rays in the opposite direction. This imparts a high degree of real-time correction to the angle of the light rays, ensuring they arrive at the image plane devoid of any unsteadiness. There is considerable science underlying this optomechanical subsystem and some years of incremental refinements to the design that have produced the very high performance in the new HJ15ex8.5B lens.





### Enhanced Digital Drive Unit

Guided by long-term worldwide experiences and continuing market research, Canon redesigned the Drive Unit by mobilizing the latest 3D CAD-CAM to significantly improve the human tactile interface to the lens controls. The new design significantly improves operational control, and introduces a dramatic reduction in physical stress during long-duration shoulder-mounted operation. In addition, the deployment of miniature 16-bit high resolution optical Rotary Encoders within the enhanced digital drive unit, offers the following features:

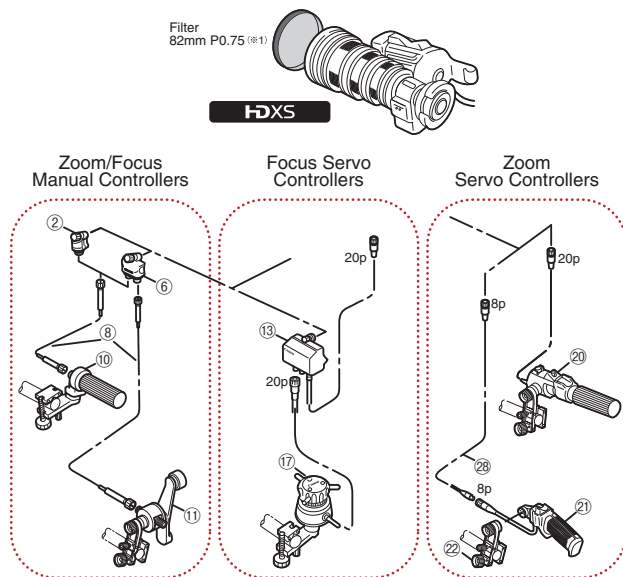
- Simple integration into virtual digital studio systems without any options.
- Superior smoothness and precision over the lens controls.
- Dynamic zoom speed range of 0.5 sec. to over a 5 min. super slow zoom.
- Precise repeatability in zoom, focus and iris control which supports the creative digital operational functions.
- Enhanced Digital Functions such as the "Shuttle Shot", "Frame Preset", "Speed Preset" and others are available.



### SPECIFICATIONS

HJ15ex8.5B KRSE-V	16:9	4:3
Zoom Ratio	15×	
Image Size	2/3"	
Built-in Extender	—	
Range of Focal Length	8.5~128mm	
Maximum Relative Aperture	1:2.5 at 8.5~68mm 1:4.7 at 128mm	
Angular Field of View	58.9°×35.2° at 8.5mm 4.3°×2.4° at 128mm	54.7°×42.4° at 8.5mm 3.9°×3.0° at 128mm
Minimum Object Distance (M.O.D)	0.8mm (10mm with Macro)	
Object Dimensions at M.O.D	95.8×53.9cm at 8.5mm 6.4×3.6cm at 128mm	87.4×65.6cm at 8.5mm 5.8×4.4cm at 128mm
Object Demensions with Macro	6.6×3.7cm at 8.5mm (10mm with Macro)	6.0×4.5cm at 8.5mm (10mm with Macro)
Approx. Size	W×H×L=170.2×119.1×239.1mm	
Approx. Mass	1.99Kg (4.37lbs)	

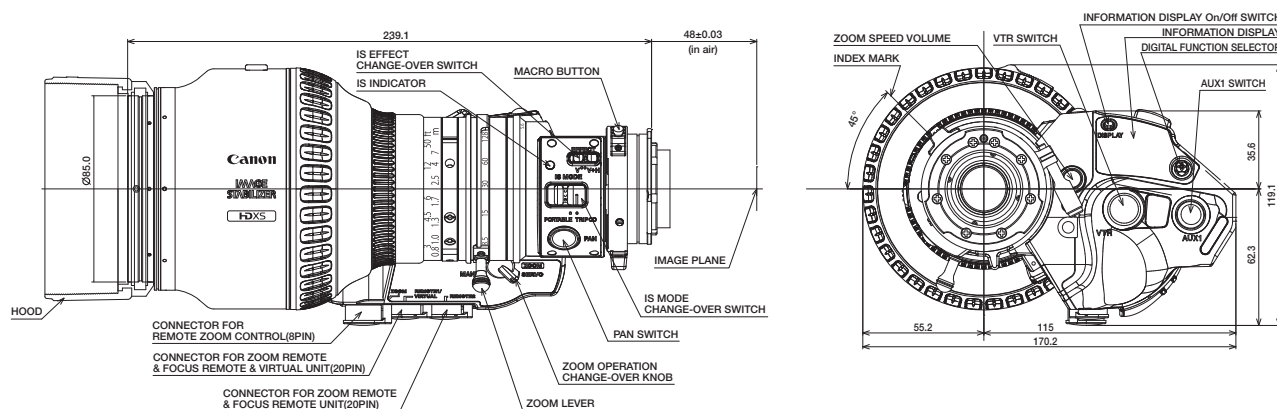
## ACCESSORIES



#	Unit	Description
②	FFM-100	Flex Focus Module
⑥	FFM-200	Flex Dual Module
⑧	FC-40	Flex Cable
⑩	FFC-200	Flex Focus Controller
⑪	FZC-100	Flex Zoom Controller
⑬	FPM-420D	Focus Positional Servo Module
⑰	FPD-400D	Focus Positional Demand
⑳	ZSD-300D	Zoom Servo Demand
㉑	ZSG-200M	Zoom Servo Grip
㉒	CR-10	Clamper
㉓	EC-80	Zoom Extension Cable (8P)

(※1) For the optical accessories, the 82mm diameter P0.75 filters are applicable. The filters are to be attached to the lens barrel. (UV/Clear/Cross/Snow Cross/Sunny Cross/Polarized Light/Softon/ND8)  
The optical converters and attachments are not applicable.

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